

What is Claimed is:

1. A filter for reducing RF interference on a coaxial network, the filter comprising:
  - a ferrite form; and
  - a solid conductor having first and second ends, the conductor being wound about or through the ferrite form thereby creating a choke in series between the first conductor end and the second conductor end; and
  - a terminal coupler provided at one of the conductor ends for electrically coupling the choke between a coaxial network ground block and a ground reference source.
2. The filter of Claim 1 wherein the solid conductor is configured to function as a ground for the coaxial network and to attenuate the RF interference.
3. The filter of Claim 2, wherein the toroid is constructed of ferro-magnetic material.
4. The filter of Claim 3 wherein the toroid attenuates RF signals in a frequency band from approximately 5 MHz to approximately 42 MHz.
5. The filter of Claim 3 wherein the toroid is constructed of type 77 ferrite material.
6. The filter of Claim 5 wherein the conductor is constructed of at least 14 gauge copper wire.
7. The filter of Claim 2 wherein the terminal coupler comprises a threaded receptacle for receiving a threaded bolt, first and second apertures in the threaded receptacle adapted to receive the first conductor end and a ground wire from the ground reference source and a threaded bolt screw threaded into the threaded receptacle configured to hold the first conductor end and the ground wire in the first and second apertures.

8. A filter for reducing impulse noise in a coaxial network wherein the impulse noise is being introduced into the coaxial network through a coaxial network ground wire, the filter comprising:

a ferrite form; and

a solid conductor having first and second ends and a cross-section of sufficient size to function as a suitable ground for the coaxial network, the conductor being insulated from the ferrite form and wound about the ferrite form thereby creating an impulse noise choke.

9. The filter of Claim 8 wherein the impulse noise choke is configured to function as a sufficient ground for the coaxial network and to attenuate RF signals in the frequency band between approximately 5 MHz and approximately 42 MHz.

10. The filter of Claim 8 further comprising a ground block coupled to the noise choke.

11. The filter of Claim 8 wherein the ferrite form is constructed of number 77 ferrite material.

12. The filter of Claim 8 further comprising a housing having an interior, the ferrite form being secured within the housing interior;

5 being adapted for joining the coaxial network to the first conductor end with a ground wire; and

wherein the second conductor end protrudes through the housing for attachment to a ground block source.

13. An improved coaxial network for transmission of two-way RF signals, the system comprising:

a coaxial network having at least one coaxial cable traversing a distance between a first site and a second site, the coaxial cable having an outer shield; and

5 an RF choke connected in series between a ground reference source and the coaxial cable outer shield.

14. The coaxial network of Claim 13 wherein the RF choke comprises a ferrite form and a solid conductor, the conductor being wound about the ferrite form.

15. The coaxial network of Claim 13 wherein the RF choke comprises a ferrite form adapted so that it can be placed around a ground wire.

16. The coaxial network of Claim 13 wherein the RF choke attenuates RF signals in a frequency band from approximately 5 MHz to approximately 42 MHz.

17. The coaxial network of Claim 14 wherein the ferrite form is constructed of type 77 or similar performing material ferrite material.

18. A method of reducing RF interference on a coaxial network, the coaxial network having at least one coaxial cable having a coaxial shield traversing a distance between a first site and a second site wherein the shield is grounded at the second site through a ground wire connected between the shield and a ground reference source, the method comprising the step of:

5 connecting an RF choke in series with the shield and the ground reference source.

*Patent* 19. The method of Claim 18 wherein the RF choke comprises a ferrite form; and a solid conductor having first and second ends, an insulated outer surface and a cross-section of sufficient size to function as a suitable ground for the coaxial network, the conductor being wound about the toroid.

20. The method of Claim 18 wherein the RF choke comprises a ferrite form adapted so that the ferrite form can be placed around the ground wire.

21. A method of minimizing ferrite magnetization caused by impulsive current in a coaxial network ground path, the coaxial network having at least one coaxial cable having a coaxial shield traversing a distance between a first site and a second site wherein the shield is grounded at the second site through a ground wire connected between the shield and a ground reference source, the method comprising the step of:

connecting an RF choke in series with the shield and the ground reference source.

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